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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/036,253	10/22/2001	Georg Stegemann	L&L-I0262	3332

24131 7590 09/28/2004

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EXAMINER

BEAMER, TEMICA M

ART UNIT	PAPER NUMBER
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2681

DATE MAILED: 09/28/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/036,253

Applicant(s)

STEGEMANN, GEORG

Examiner

Temica M. Beamer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-9 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4 and 5.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2 and 4-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Cooper et al (Cooper), U.S. Patent No. 5,386,435.

Regarding claim 1, Cooper discloses a frequency-synchronizing method in a wireless communications system, which comprises: communicating between a mobile unit and a stationary base station over a defined number of frequencies (col. 6, lines 33-45); transmitting a message containing a code identifying the base station during a time slot within a time frame; deriving a key from the identification code (col. 7, lines 6-36, col. 18, lines 1-27); specifying a defined number of different, unique frequency sequences each containing all the frequencies of the defined number of frequencies (col. 7, lines 23-36; col. 18, line 28-col. 19, line 12); assigning one of the frequency sequences to the key and selecting the one frequency sequence with the key (col. 7, line 66-col. 8, line 9, col. 16, line 59-col. 17, line 23); and consecutively changing to the frequencies contained in the assigned frequency sequence in the defined sequence by the base station and the associated mobile unit (col. 20, lines 10-56).

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Regarding claim 2, Cooper discloses the method according to claim 1, which comprises calculating each of the frequency sequences with different algorithms, and thereby determining each subsequent frequency on a basis of an immediately preceding frequency (col. 20, lines 18-56).

Regarding claim 4, Cooper discloses the method according to claim 1; wherein each frequency sequence has several different, unique subfrequency sequences specified by subkeys derived from the identification signal (col. 19, line 42-col. 20, line 56).

Regarding claim 5, Cooper discloses the method according to claim 4, which comprises, once a subfrequency sequence has been run through completely, using another subfrequency sequence (col. 20, lines 43-56).

Regarding claim 6, Cooper discloses the method according to claim 1, which comprises retaining a frequency for a defined number of time frames before changing the frequency, and transmitting an item of information specifying how many times a current frequency will be used for transmission (col. 13, line 52-col. 14, line 31).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cooper.

Regarding claim 7, Cooper discloses the method according to claim as described above. Cooper, however, fails to disclose, in the mobile unit, checking the message transmitted from the base station for errors, and adopting the receiver key and make a frequency change only after an error-free message is received.

The examiner contends, however, that at the time of invention, such a feature would have been obvious to a person of ordinary skill in the art. Such a feature would ensure that a mobile terminal is using the correct frequency thereby reducing system interference.

Regarding claims 8 and 9, Cooper discloses the methods of the functions described in claims 8 and 9. Cooper, however, is silent as to how the system is configured to perform such functions. The examiner, contends, however, that the configuration is obvious in that it simply provides structure for the logical implementation found in claim 1. Furthermore, the examiner believes that the limitations of claims 8 and 9 would not render the claims patentable over the applied reference because such limitations merely depend on how one would physically design the system, without changing the scope of the invention in the applied reference.

Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art to modify Cooper with the configuration claimed, as such would be a system design preference.

Allowable Subject Matter

5. Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter: Prior art fails to suggest or render obvious using 40 frequency sequences, and calculating the frequency sequence with the following algorithm:

$f.\text{sub}.x+1=\text{mod}(75[f.\text{sub}.x+Y]); Y=1, 2, 4, 7, 8, 11, 13, 14, 16, \dots, 68, 71, 73, 74;$

wherein $f.\text{sub}.x$ is a frequency in the frequency sequence.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wan, U.S. Patent No. 6,680,920.

Dent, U.S. Patent No. 5,425,049.

Bauchot et al, U.S. Patent No. 6,031,864.

Bantz et al, U.S. Patent No. 5,394,433.

Massingill et al, U.S. Patent No. 5,978,366.

Jackson et al, U.S. Patent No. 5,978,674.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Temica M. Beamer whose telephone number is (703)

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306-5837. The examiner can normally be reached on Monday-Thursday (alternate Fridays) 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on (703) 308-4825. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Temica M. Beamer
Examiner
Art Unit 2681

September 27, 2004

